

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application.

1. (Currently Amended) A transaction system for transacting through a communication network, comprising:

a first terminal that is a vending machine connecting to the communication network and having an information indicating unit, ~~the information indicating unit having an infrared transmitting unit;~~

a second terminal that is at least one of a cellular telephone and a PDA and having a unique ID information, an antenna and an input unit, ~~the input unit having an infrared receiving unit;~~ said second terminal being connectable to said first terminal through the communication network with said antenna; and

a transaction apparatus communicating with said first and second terminals through the communication network, said transaction apparatus storing said unique ID information of said second terminal in advance, said transaction apparatus setting up and sending a transaction ID information to said first terminal, said transaction apparatus receiving from said second terminal said unique ID information of said second terminal together with said transaction ID information ~~transmitting from said infrared transmitting unit of said first terminal to said infrared receiving unit of said second terminal~~, said transaction apparatus performing the transaction by synchronizing a communication with said first terminal and said second terminal when said unique ID information received from said second terminal is identical with that stored in said transaction apparatus in advance previously.

2. (Previously amended) A transaction system as claimed in claim 1, wherein said first terminal connects to said transaction apparatus via a commercial telephone line or a private line, and said second terminal connects to said transaction apparatus via a radiotelephone communication.

3. (Currently Amended) A transaction apparatus for transaction through a communication network with a first terminal that is a vending machine~~having an infrared transmitting unit~~ and a second terminal that is at least one of a cellular phone and a PDA and having a unique ID information,~~and an antenna and an infrared receiving unit~~, said second terminal being connectable to said first terminal through the communication network with said antenna, comprising:

a user database for storing said unique ID information of said second terminal in advance;

a processing unit for setting up a transaction ID information to be indicated on said first terminal,

a first communication unit for connecting to the first terminal via the communication network, said first communication unit sending the transaction ID information to the first terminal; and

a second communication unit for connecting to the second terminal via the communication network and receiving from said second terminal said unique ID information of said second terminal together with said transaction ID information that is transmitted from ~~said infrared transmitting unit of the first terminal to the infrared receiving unit of the second terminal,~~

wherein said processing unit performs the transaction by synchronizing a communication with said first terminal and said second terminal when said unique ID information received from said second terminal is identical with that stored in said user database.

4. (Previously presented) A transaction apparatus as claimed in claim 3, wherein said first communication unit connects to the first terminal via at least one of a commercial telephone line and a private line, and said second communication unit connects to the second terminal via radiotelephone communication.

5. (Previously presented) A transaction apparatus as claimed in claim 4, wherein:
said first communication unit receives a purchase amount of the transaction from the first terminal;

said second communication unit transmits said purchase amount to the second terminal so that the second terminal confirms said purchase amount, and receives a final purchase confirmation signal;

said processing unit performs a settlement processing after said second communication unit receives the final purchase confirmation signal from the second terminal;

said first communication unit transmits a settlement completion notification, which notifies completion of the settlement processing performed by said processing unit to the first terminal; and

said second communication unit transmits to the second terminal a receipt which notifies the receiving of said purchase amount of the settlement processed by said processing unit.

6. (Previously presented) A transaction apparatus as claimed in claim 5, further comprising a first terminal database storing information about the first terminal,

wherein said first communication unit receives from the first terminal an identifying number to identify the first terminal, and

said processing unit retrieves information about the first terminal from said first terminal database and confirms a registration of the first terminal, based on the identifying number.

7. (Previously presented) A transaction apparatus as claimed in claim 6, wherein said second communication unit transmits to the second terminal the information about the first terminal, for the second terminal to confirm the first terminal, retrieved from said first terminal database.

8. (Previously presented) A transaction apparatus as claimed in claim 7, further comprising a second terminal database which stores information about the second terminal,

wherein said second communication unit detects a calling telephone number of the second terminal, and

said processing unit retrieves information about a user of the second terminal from said second terminal database based on the calling telephone number, and said processing unit inquires about at least one of a registration status of the user, a payment history of the user, and available amount of the user.

9. (Previously presented) A transaction apparatus as claimed in claim 8, wherein said processing unit retrieves at least a part of attribute information of the user of the second

terminal from said paying terminal database, and said first communication unit transmits to the first terminal at least a part of the attribute information of the user of the second terminal.

10. (Previously presented) A transaction apparatus as claimed in claim 11, wherein when said second communication unit receives a message which demands a purchase history of the user of the second terminal, said processing unit retrieves said purchase history of the user from said second terminal database, and said second communication unit transmits the purchase history to the second terminal.

11. (Previously presented) A transaction apparatus as claimed in claim 8, wherein said first communication unit transmits to the first terminal a transaction identifying number in order to identify the transaction, and

said processing unit synchronizes a communication to the first terminal with a communication to the second terminal, and said first communication unit transmits to the first terminal a synchronization confirmation signal which indicates establishment of synchronization, when the first terminal notifies said transaction identifying number to at least one of the second terminal and a user of the second terminal, and when the second terminal transmits to said transaction apparatus the same transaction identifying number.

12.-39. (Canceled)

40. (Previously presented) A transaction system as claimed in claim 1, wherein said transaction apparatus presents said transaction identifying number on the communication network.

41. (Previously presented) A transaction apparatus as claimed in claim 3, wherein said transaction apparatus presents said transaction identifying number on the communication network.

42.-45. (Canceled)

46. (Previously presented) A transaction system as claimed in claim 1, wherein said transaction identification number relates to an order in the transaction.

47. (Previously presented) A transaction apparatus as claimed in claim 3, wherein said transaction identification number relates to an order in the transaction.

48.-51. (Canceled)

52. (Previously presented) A transaction system as claimed in claim 1, wherein said second terminal is a unique terminal for a user and said input unit of said second terminal inputs said unique ID information thereof into said transaction apparatus previously, and said transaction apparatus stores said unique ID information that is inputted by said input unit and said transaction ID information that is set up by said transaction apparatus in association with each other.

53. (Previously presented) A transaction system as claimed in claim 1, wherein said information indicating unit of said first terminal further comprises a display or a speaker.

54. (Previously presented) A transaction system as claimed in claim 1, wherein said first terminal is a terminal for a plurality of unspecified users and said second terminal is a unique terminal for the user.

55. (Previously presented) A transaction system as claimed in claim 54, wherein said second terminal is a portable terminal.

56. (Previously presented) A transaction system as claimed in claim 55, wherein said second terminal is a portable phone.

57. (Previously presented) A transaction system as claimed in claim 1, wherein said transaction apparatus synchronizes the communication with said first terminal and said second terminal one-to-one.

58. (Previously presented) A transaction system as claimed in claim 1, further comprising a plurality of second terminals and wherein said transaction apparatus synchronizes the communication with said first terminal and said second terminal one-to-many.

59. (Previously presented) A transaction system as claimed in claim 58, wherein said transaction apparatus permits said first terminal to perform a function and said transaction apparatus permits said second terminal to perform another function during the synchronization between said first terminal and said second terminal.

60. (Previously presented) A transaction system as claimed in claim 59, wherein said transaction apparatus permits a one way communication from said second terminal to said first terminal during the synchronization.

61. (Previously presented) A transaction system as claimed in claim 57, further comprising a plurality of first and second terminals, wherein said transaction apparatus sets up a plurality of different transaction ID information each other, based on each instant of the current time, in accordance with each of instruction from each of said first terminal.

62. (Currently Amended) A method of a transaction system including a first terminal that is a vending machine, a second terminal that is at least one of a cellular phone and a PDA, and a transaction apparatus communicating with said first and second terminals through a communication network, said first terminal having an indicating unit ~~including an infrared transmitting unit~~, said second terminal having a unique ID information, an antenna and an input unit ~~including an infrared receiving unit~~, and said second terminal being connectable to said first terminal through the communication network with said antenna, the method comprising:

storing said unique ID information of said second terminal in said transaction apparatus in advance;

connecting said first terminal with said transaction apparatus through the communication network;

setting up a transaction ID information in said transaction apparatus;

sending said transaction ID information to said first terminal;

indicating said transaction ID information in said indicating unit of said first terminal;

inputting said transaction ID information to said input unit of said second terminal by transmitting said transaction ID from ~~said infrared transmitting unit of said first terminal to the infrared receiving unit of said second terminal;~~

receiving from said second terminal said unique ID information of said second terminal together with said transaction ID information indicated on said information indicating unit of said first terminal; and

performing the transaction by synchronizing a communication with said first and said second terminals when said unique ID information received from said second terminal is identical with that stored in said transaction apparatus.

63. (Previously presented) A method as claimed in claim 62, further comprising inputting said unique ID information thereof from said input unit of said second terminal into said transaction apparatus, and wherein said storing said unique ID information includes storing said transaction ID information in association with said unique ID information in advance.

64. (Previously presented) A method as claimed in claim 62, wherein the transaction system includes a plurality of first terminals and second terminals; and wherein said setting up the transaction ID information includes setting up a plurality of transaction ID information different from each other, based on each instant of the current time, in accordance with each instruction from each of said first terminals.

65. (Previously presented) A method as claimed in claim 62, further comprising permitting said first terminal to perform a function and permitting said second terminal to perform another function, during the synchronization.

66. (Currently Amended) A recording medium which stores a program for a computer for a transaction system including a first terminal that is a vending machine, a second terminal that is at least one of a cellular phone and a PDA, and a transaction apparatus communicating with said first and second terminal through a communication network, said first terminal having an indicating unit ~~including an infrared transmitting unit~~, said second terminal having a unique ID information, an antenna and an input unit ~~having an infrared receiving unit~~, and said second terminal being connectable to said first terminal through the communication network with the antenna, the recording medium comprising:

a storing module which stores said unique ID information of said second terminal in said transaction apparatus;

a connecting module which connects said first terminal with said transaction apparatus through the communication network;

a setting up module which sets up a transaction ID information in said transaction apparatus;

a sending module which sends said transaction ID information to said first terminal;

an indicating module for indicating said transaction ID information in said indicating unit of said first terminal;

an inputting module which inputs said transaction ID information transmitted by said ~~infrared transmitting unit~~indicating unit to said ~~infrared receiving unit~~ of said input unit of said second terminal;

a receiving module which receives from said second terminal said unique ID information of said second terminal together with said transaction ID information indicated on said information indicating unit of said first terminal; and

a performing module which performs the transaction by synchronizing a communication with said first terminal and said second terminal when said unique ID information received from said second terminal is identical with that stored in said transaction apparatus.

67. (Previously presented) A transaction apparatus as claimed in claim 3, wherein said user database stores said unique ID information that is inputted by said input unit of said second terminal and said transaction ID information that is set up, in association with each other.

68. (Previously presented) A transaction apparatus as claimed in claim 3, wherein said processing unit synchronizes the communication with said first terminal and said second terminal one-to-one.

69. (Previously presented) A transaction apparatus as claimed in claim 68, further comprising a plurality of first and second terminals, wherein said processing unit sets up a plurality of transaction ID information different from each other, based on each instant of the current time, in accordance with each instruction from each of said first terminals,

70. (Previously presented) A transaction apparatus as claimed in claim 3, wherein said processing unit permits said first terminal to perform a function and said transaction apparatus permits said second terminal to perform another function during the synchronization.

71. (Previously presented) A transaction apparatus as claimed in claim 70, wherein said processing unit permits a one way communication from said second terminal to said first terminal during the synchronization.

72. (Currently Amended) A method of a transaction apparatus for transacting through a communication network with a first terminal that is a vending machine having an information indicating unit ~~including an infrared transmitting unit~~ and a second terminal that is at least one of a cellular phone and a PDA and having unique ID information; and an antenna ~~and an infrared receiving unit~~, said second terminal being connectable to said first terminal through the communication network with said antenna, comprising:

storing said unique ID information of said second terminal in advance;

connecting to the first terminal via said communication network;

setting up a transaction ID information to be indicated on said first terminal;

connecting to the second terminal via said communication network;

receiving from said second terminal said unique ID information of said second terminal together with said transaction ID information transmitted by ~~said infrared transmitting unit of~~ said first terminal and inputted through ~~said infrared receiving unit of~~ said second terminal at the same site as said first terminal; and

performing the transaction by synchronizing a communication with said first terminal and said second terminal when said unique ID information received from said second terminal is identical with that stored in advance in said user database.

73. (Previously presented) A method as claimed in claim 72, wherein said storing said unique ID information of said second terminal includes storing both said unique ID information that is inputted by said input unit of said second terminal and said transaction ID information that is set up, in association with each other.

74. (Previously presented) A method as claimed in claim 72, wherein said connecting to the first terminal via the communication network includes connecting a plurality of first terminals;

said connecting to the second terminal via a second communicating network includes connecting a plurality of second terminals; and

said setting up a transaction ID information includes setting up a plurality of transaction ID information different from each other, based on each instant of the current time, in accordance with each instruction from each of said first terminals.

75. (Previously presented) A method as claimed in claim 72, wherein said performing the transaction includes permitting said first terminal to perform at least a function and permitting said second terminal to perform another function during the synchronization.

76. (Previously presented) A method as claimed in claim 75, wherein said performing the transaction further includes permitting a one way communication from said second terminal to said first terminal during the synchronization.

77. (Currently Amended) A recording medium which stores a program for a computer for a transaction apparatus for transacting through a communication network with a first terminal that is a vending machine having an information indicating unit ~~including an infrared transmitting unit~~ and a second terminal that is at least one of a cellular phone and a PDA ~~and having unique ID information, and an antenna and an infrared receiving unit~~, said second terminal being connectable to said first terminal through the communication network with said antenna, comprising:

a storing module which stores said unique ID information of said second terminal in advance;

a setting up module which sets up a transaction ID information to be indicated on said first terminal;

a first connecting module which connects to the first terminal via said communication network;

a second connecting module which connects to the second terminal via said communication network;

a receiving module which receives from said second terminal said unique ID information of said second terminal together with said transaction ID information transmitted by ~~said infrared transmitting unit of said first terminal and inputted through said infrared receiving unit of said second terminal~~; and

a performing module which performs the transaction by synchronizing a communication with said first terminal and said second terminal when said unique ID information received from said second terminal is identical with that stored in said user database.

78.-96. (Canceled)

97. (Cancelled)

98. (Currently Amended) A transaction system as claimed in claim ~~97~~1, wherein said first terminal further comprises an information indicating unit on which the transaction ID information is indicated and said second terminal further comprises an input unit from which the transaction ID information indicated on said information indicating unit is transmitted to the transaction apparatus.

99. (Cancelled)

100. (Currently Amended) A transaction apparatus as claimed in claim ~~99~~3, wherein the first terminal further comprises an information indicating unit on which the transaction ID information is indicated and the second terminal further comprises an input unit from which the transaction ID information indicated on the information indicating unit is transmitted to the transaction apparatus.

101. (New) A transaction system as in claim 1, wherein the information indicating unit of the first terminal has an infrared transmitting unit.

102. (New) A transaction system as in claim 1, wherein the input unit of the second terminal has an infrared receiving unit.

103. (New) A transaction system as in claim 1, wherein at least one of the information indicating unit and the input unit is a short-range communicating unit.

104. (New) A transaction apparatus as in claim 3, wherein the first terminal has an infrared transmitting unit.

105. (New) A transaction apparatus as in claim 3, wherein the second terminal has an infrared receiving unit.

106. (New) A transaction apparatus as in claim 3, wherein at least one of first terminal and the second terminal has a short-range communicating unit.

107. (New) A method as in claim 62, wherein the indicating unit of the first terminal has an infrared transmitting unit.

108. (New) A method as in claim 62, wherein the input unit of the second terminal has an infrared receiving unit.

109. (New) A method as in claim 62, wherein at least one of the indicating unit and the input unit is a short-range communicating unit.

110. (New) A recording medium as in claim 66, wherein the indicating unit of the first terminal has an infrared transmitting unit.

111. (New) A recording medium as in claim 66, wherein the input unit of the second terminal has an infrared receiving unit.

112. (New) A recording medium as in claim 66, wherein at least one of the indicating unit and the input unit is a short-range communicating unit.

113. (New) A method as in claim 72, wherein the information indicating unit of the first terminal has an infrared transmitting unit.

114. (New) A method as in claim 72, wherein the second terminal has an infrared receiving unit.

115. (New) A method as in claim 72, wherein at least one of the information indicating unit and the second terminal is a short-range communicating unit.

116. (New) A recording medium as in claim 77, wherein the information indicating unit of the first terminal has an infrared transmitting unit.

117. (New) A recording medium as in claim 77, wherein the second terminal has an infrared receiving unit.

118. (New) A recording medium as in claim 77, wherein at least one of the information indicating unit and the second terminal has a short-range communicating unit.